

3.2 Collecting the Core

STANDARD OPERATING PROCEDURE

COLLECTING SEDIMENT SAMPLES USING A HAND-HELD VIBROCORING UNIT

1.0 SCOPE AND APPLICATION

This standard operating procedure (SOP) describes a technique for collecting short (< 6') sediment cores using a battery-operated, hand-held vibrocoring unit. The cores are 2" in diameter, and collected in tubes made of either cellulose acetate butyrate (CAB) or Lexan plastic. Sediment cores are useful for investigating the vertical distribution of contaminant concentrations, for evaluating contamination histories, assessing the volume of contaminated sediment, etc. Much of the information in this SOP is contained in Smith, et al. (1996).

2.0 METHOD SUMMARY

A sediment core is collected using a battery-operated, hand-held vibrocoring unit, in 2"-diameter core tubes. The core tube is opened using a saw, and sediment subsamples collected as per the project-specific Field Sampling Plan. This vibrocoring unit is not submersible, and is best used in waters less than 10' deep.

3.0 SAMPLE COLLECTION AND PROCESSING

3.1 Supplies and Materials

- a hand-held vibrocoring system, designed by AScI Corporation, consisting of: electric vibrator motor (12 V DC) and mounting plate with socket for attachment of 2" diameter extension poles
- two, 12 V DC storage batteries with charger
- core tube adapter and clamp with check valve and retrieval lines attached
- 2-10 ft. extension poles
- 6.5 ft. (2 meter) lengths of 2" diameter core tube (CAB [cellulose acetate butyrate] polymer) with or without CAB core catchers attached
- 2" diameter PE (polyethylene) end caps
- duct tape
- waterproof marker pens
- portable drill and 3/8" bit
- tube cutter tool
- glass or polypropylene sample bottles
- field crew of at least 2
- this SOP